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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/300,139	04/27/1999	GARY S. GREENBAUM	REALNET.009A	4138

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EXAMINER

SENF, BEHROOZ M

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 08/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/300,139

Applicant(s)

GREENBAUM ET AL.

Examiner

Behrooz Senfi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 May 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>g</u> . | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's arguments filed May 21, 2002 have been fully considered but they are not persuasive.

**Response to remarks:**

Applicant asserts (paper no. 7, page 8, lines 28+) that Boon '952 does not Disclose;

a) encoding of an input media signal to generate a plurality of encoded representations.

b) using a set of data generated based upon an input signal to generate a plurality of independent encoded representations of the media signal.

c) identification or selection of synchronization points or synchronization frames at which a switch from a decoding of one representation of the signal to the decoding of another representation of the signal can be performed without discontinuity.

**Examiner answer to remarks:**

As for a) Boon '952 discloses generating a plurality of encoded representations (fig. 3) shows an input media (110) being encoded independently using arithmetic encoding and conventional and generating plurality of encoded representations E2 and EP (shape and texture, page 12, sections 0203 and 0204), which meets the limitations as claimed.

As for b) fig. 3 of Boon's '952 clearly shows two independent encoding process of input signal (arithmetic coding and conventional coding, 120 and 130), having multiple independent outputs (E2 and Ep).

As for c) fig. 5 of Boon's '952 shows Swb (switch control signal) and/or fig. 3, multiplexer 150, for the decoding of one representation of the signal to another representation signal base on analysis result (page 14, section 0228), and also Boon '952 discloses that image is not discontinued and the image flows smoothly (page 17, section 0260), also discloses synch signal page 19, section 0286, which reads on limitations as claimed.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1 – 12, 14 – 17, 19 – 20, 22, 24 – 32, 34 – 42 and 44 – 45, are rejected under 35 U.S.C. 102(e) as being anticipated by Boon (US 2001/0013952 A1).

Regarding claims 1 and 24, Boon '952 discloses a plurality of synchronized encoded representations of an input media signal (fig. 3), comprising;

a) providing an input media signal (fig. 3, unit 110).

b) encoding input media signal to generate a plurality of encoded representations (fig. 3, shape and texture representations, page 12, sections 0203 and 0204), wherein

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each representation is encoded according to a different set of encoding (i.e. fig. 3, arithmetic encoder and conventional encoder using different parameters) parameters, and designating a plurality of synchronization points such that switching between a decoding of one of encoded representations and another of encoded representations can be performed with no substantially discontinuity (i.e. fig. 5, analyzer 160 and switch 101b, multiplexer 150, and synthesizer 190, pages 14 - 15, sections 0227, 0228, 0230 and page 17, section 0260, lines 10 - 12).

Regarding claim 2, Boon '952 discloses encoded representations can be decoded independently of any other encoded representation (i.e. fig. 5, 170 and 180 independently decoding encoded representations).

Regarding claims 3 - 5, 11, 14, 19 - 20, Boon '952 discloses synchronization points (i.e. fig. 1a, 501) and also synchronization header at the start of each word which have substantially the same time locations for each parameter (shape, texture, DCT etc.) and the maximum time of 10 second will never be exceeded.

Regarding claims 6 and 28, Boon '952, discloses input media signal comprises a video input sequence (fig. 3, video input 110), and frames of digital video (col. 1, lines 10 - 12).

Regarding claims 7, 25 - 27, Boon '952 (page 19, section 0282) detects intra frames (frames which do not require any other version of another frame), which are synched each frame. In other words, each frame in Boon '952 is synched with the header and therefore any two I frames will be synch points. Note, motion data is considered intermediate data.

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Regarding claims 8, 40 and 41, fig. 5, of Boon '952 discloses generating of encoded representation (120, 130), where 120 or 130 consider as a portion of the input media.

Regarding claim 9, 12 and 34, the limitations claimed are substantially similar to claim 1, therefore the ground for rejecting claim 1 also apply here.

Furthermore regarding the additional limitation "computer readable medium", Boon '952 discloses a computer readable medium (figs. 21a-c, page 30, sections 0412 and 0413).

Regarding claim 10, the limitations claimed are substantially similar to claim 1, therefore the ground for rejecting claim 1 also apply here.

Regarding claim 15, Boon '952 discloses the host computer (fig 21c). Also output comprising a plurality of independent encoded representations of said digital video input sequence and encoding according to a different set of encoding parameters (figs. 13(a) and 13(b), shows the shape and texture using different encoding parameters, also page 29, section 0402 and 0403), and encoding application operating on the host computer (page 30, section 0411).

Regarding claim 16, "generating a set of data from digital video input sequence and video encoding application using set of data to generate plurality of encoded representations" are substantially the same as encoding parameters, therefore the ground for rejection claims 1 and 6 also apply here.

Regarding claim 17, Boon '952 discloses storage device for storing data (page 1, section 0001).

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Regarding claim 22, MPEG protocol inherently encode contiguously.

Regarding claim 29, 30, Boon '952 discloses DCT (unit 134).

Regarding claim 31 - 32, Boon '952 discloses ME (i.e. fig. 3, unit 121) and MC (i.e. fig. 3, unit 123) and color converted (i.e. page 1, section 0008).

Regarding claim 35, the limitations claimed are substantially similar to claims 10 and 27 therefore the ground for rejecting claims 10 and 27 also apply here.

Regarding claims 36 - 39, Boon '952 discloses encoded representations are interleaved in an output file or output stream (i.e. fig. 3, multiplexer/interleave 150), and for input media signal comprises a plurality of different media sources, MPEG coding environment is capable of having different media sources i.e. audio, video, texture and media source consist of video frame (i.e. fig. 3, 110).

Regarding claim 42, Boon '952 discloses (i.e. page 12, section 0205) VTR, for recording and reproduction of the media.

Regarding claims 44 - 45, limitations claimed are substantially similar to claim 2, therefore the grounds for rejecting claim 2 also apply here.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 13, 18, 21, 23, 33 and 43, are rejected under 35 U.S.C. 103(a) as being unpatentable over Boon (US 2001/0013952) in view of Trans (US 2001/0038674).

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Regarding claims 13 and 18, Boon '952 discloses producing plurality of encoded data with media (digital video) input and designating a plurality of synchronization points and switching circuit.

Boon '952 does not explicitly teach the use of a server.

However, the above claimed limitation is well-known in the art as evidenced by Trans '674. In particular, Trans '674 teaches the use of a server for transmitting data (abstract).

In view of the above, having the system of Boon '952 and then given the well established teaching of Trans '674, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Boon '952 as taught by Trans '674, for the purpose of transmitting data.

Regarding the communication network, Trans '674 teaches LAN/WAN networking systems (page 1, section 0003, also fig. 10) for transmitting a large amount of data with higher speed.

In view of the above, having the system of Boon '952 and then given the well established teaching of Trans '674, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Boon '952 as taught by Trans '674, for the purpose of transmitting a large amount of data with higher speed.

Regarding claim 21, Trans '674 teaches interleaved data recovery (i.e. figs. 11a and 20).



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In view of the above, having the system of Boon '952 and then given the well established teaching of Trans '674, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Boon '952 as taught by Trans '674, for the benefit of recovering the interleaved data.

Regarding claim 23, trans '674 teaches specific data location encode and the synchronous response (i.e. pages 17 and 18, section 0267).

Regarding claim 33, Boon '952 system teaches MPEG, and MPEG process does includes sub-sampling process.

Regarding claim 43, Boon '952 discloses plurality of encoded representations of input media and transmitting to a decoder (i.e. figs. 3 and 5), furthermore for streaming over the network Trans '674 teaches LAN/WAN networking systems (page 1, section 0003, also fig. 10).

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(703)305-0132**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chris Kelley** can be reached on **(703)305-4856**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**Or faxed to:**

**(703) 872-9314**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

B. S. B. J.

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